Amendments to the Claims

Please cancel claims 5, 12-14, 16-18, and 63 without prejudice.

The following listing of claims will replace all prior versions and/or listings of claims in the application:

1. (Currently amended): A method of preparing an implant, comprising:

subjecting a bioresorbable polymeric substrate to a gas-plasma treatment, wherein the bioresorbable polymeric substrate comprises a polylactide polymeric material, wherein subjecting the substrate to ~~a~~ the gas-plasma treatment comprises exposing the substrate to a reactive gas, wherein the reactive gas comprises oxygen, and wherein the supplied energy during the gas-plasma treatment is between about 5 kJ and about 10 kJ at a temperature of less than about 50 C, a pressure between about 0.01 torr and about 10 torr, and a discharge frequency between about 13 MHz and about 14 MHz, wherein the reactive gas comprises an oxygen content sufficient to provide oxide free radicals on the substrate when the substrate is subjected to the gas-plasma treatment; and

exposing the substrate subjected to the gas-plasma treatment to living cells that ~~can~~ produce vascular endothelial growth factor (VEGF), wherein a portion of the living cells that ~~can~~ produce VEGF become coupled to the substrate; and

wherein the living cells that ~~can~~ produce VEGF coupled to the ~~treated~~ substrate subjected to the gas-plasma treatment produce more VEGF than the living cells that ~~can~~ produce VEGF when coupled to ~~an untreated~~ the substrate not subjected to the gas-plasma treatment.

2-5. (Canceled)

6. (Original): The method of claim 1, wherein the substrate comprises a three-dimensional matrix.

7. (Original): The method of claim 1, wherein the substrate comprises a planar solid.

8. (Original): The method of claim 1, wherein the substrate comprises a nonplanar solid.

9. (Original): The method of claim 1, wherein the implant is a medical implant.

10. (Canceled)

11. (Previously presented): The method of claim 1, wherein the reactive gas consists essentially of oxygen.

12-18. (Canceled)

19. (Original): The method of claim 1, wherein the living cells comprise endothelial cells.

20. (Original): The method of claim 1, wherein the living cells comprise human aortic endothelial cells.

21. (Original): The method of claim 1, wherein the living cells comprise muscle cells.

22. (Original): The method of claim 1, wherein the living cells comprise myocardial cells.

23. (Original): The method of claim 1, wherein the living cells comprise epithelial cells.

24-31. (Canceled)

32. (Currently amended): An implant prepared by a process comprising:

subjecting a bioresorbable polymeric substrate to a gas-plasma treatment, wherein the bioresorbable polymeric substrate comprises a polylactide polymeric material, wherein subjecting the substrate to ~~a~~ the gas-plasma treatment comprises exposing the substrate to a reactive gas, wherein the reactive gas comprises oxygen, and wherein the supplied energy during the gas-plasma treatment is between about 5 kJ and about kJ at a temperature of less than about 50 C, a pressure between about 0.01 torr and about 10 torr, and a discharge frequency between about 13 MHz and about 14 MHz, wherein the reactive gas comprises an oxygen content sufficient to provide oxide free radicals on the substrate when the substrate is subjected to the gas-plasma treatment; and

exposing the substrate subjected to the gas-plasma treatment to living cells that ~~can~~ produce vascular endothelial growth factor (VEGF), wherein a portion of the living cells that ~~can~~ produce VEGF become coupled to the substrate; and

wherein the living cells that ~~can~~ produce VEGF coupled to the ~~treated~~ substrate subjected to the gas-plasma treatment produce more VEGF than living cells that ~~can~~ produce VEGF when coupled to ~~an untreated~~ the substrate not subjected to the gas-plasma treatment.

33-129. (Canceled)